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Student Mistakes in Elite School Classrooms: Teacher Reflections and Reported Instructional Strategies

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Abstract

This article explores how teachers respond to student mistakes in one educational setting—an elite private high school. This qualitative study is a thematic analysis of in-depth, semi-structured interviews with teachers at one such school. The results reveal that in their responses to student mistakes, the teachers work to build trust and emotional safety, give students agency throughout the learning and feedback processes, and ask probing questions that rigorously challenge their thinking. By considering teacher accounts of their instructional approaches and past experiences, the study adds a context-specific, real-world perspective on how teachers in an elite school frame student mistakes.

Keywords: *private education, instructional practices, teacher context, high schools, in-depth interviewing, error correction*

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Introduction

The process of learning encompasses more than just academics—it is a social endeavor that manifests within classroom communities over time. Gradually, the subtle habits, practices, and language enacted during instructional interactions form distinctive social learning environments that shape students’ intellectual growth. One key classroom activity that relies heavily on teacher-student interaction is feedback, defined as “information provided by an agent regarding aspects of one’s performance or understanding” (Wisniewski et al., 2020, p. 1). Laboratory-based research over decades has yielded numerous findings that demonstrate how feedback positively impacts memory and retention. However, only a small number of studies focus specifically on the real-world contexts in which practicing teachers respond to students’ mistakes and provide feedback during classroom instruction.

Despite a bounty of research-based best practices about the ways feedback should ideally be provided (Brooks et al., 2019; Winstone et al., 2017), teachers confront structural factors that shape how they respond to

student mistakes during their day-to-day teaching. For example, vast differences in grade level requirements, achievement pressures from district leaders and parents, administrative expectations, and school resources likely yield a range of teacher responses tailored to specific settings across the American educational landscape. Some prior studies have delved into the workings of teacher responses to mistakes by comparing U.S. educators to those in other countries (Eriksson et al., 2020). Several researchers have conducted error analysis and/or identified instructional approaches to errors within niche areas of mathematics teaching (e.g., Cho & Nagle, 2017; Hu et al., 2021; Shaughnessy et al., 2021), while others have provided deep dives into U.S. elementary public school teacher practices and beliefs (e.g., Donaldson, 2021; Lottero-Perdue & Parry, 2017). However, few studies have pointedly explored teachers' perspectives on the classroom experience of responding to mistakes in U.S. high school or private school settings.

There are many reasons why U.S. private schools are a particularly interesting context to consider when it comes to thinking about teacher responses to mistakes during classroom instruction. The category of private or "independent" schools includes a wide range of institutions, including parochial or religious schools, Montessori classrooms, vocational/technical centers, hubs for special education, elite campuses, and more (U.S. Department of Education, 2017). In this educational setting—which serves nearly five million American PK–12 students, or roughly 10% of all students in the United States (U.S. Department of Education, 2023a)—teachers do not typically have to cater to the litany of state standards that public school teachers must address in daily instruction. They are not required to participate in annual statewide standardized tests, nor are they mandated to report scores of any testing that they do elect to administer (Garnett, 2021). Further, classes are characteristically small and have an average pupil-teacher ratio of 10:1, compared to 16:1 in the average U.S. public school (U.S. Department of Education, 2023b). As a result, private schools can extend teachers a great deal of latitude in the content, pacing, and methods of how they choose to teach on a day-to-day basis. Examining teacher responses to student mistakes in a less-constrained context—like an extremely well-resourced, elite private high school—can offer insights into the ways educators respond to mistakes and mold the error climate in this seldom-explored setting. To that end, this interview study probes this research question: According to their own reports, how do teachers at an elite private school frame and respond to student mistakes made during instruction?

Literature Review

The Role of Mistakes in U.S. Classroom Teaching

Before examining the error-related actions and beliefs of educators in the elite private school context, we should first consider the existing literature on U.S. teacher responses to student mistakes.

As the leader of the classroom, teachers not only provide instruction, but also shape the community norms and social environment. Their relationships with students can have a strong influence on student attitudes, achievement, and engagement in the short and long term (Engels et al., 2021; Hughes & Cao, 2018). Responses to mistakes during instruction play a pivotal role in shaping the students' learning experience (Loibl & Leuders, 2019); when students have a positive attitude about their errors, they tend also to have a more adaptive response (Käfer et al., 2019; Tulis et al., 2018). Ideally, teacher feedback on mistakes and misunderstandings should consider what is being learned and who the learner is; it should also focus more on student thinking than on the number of right answers (Brookhart, 2017).

Over the past decades, many lab-based researchers have found that corrective feedback—i.e., clearly indicating or affirming the right answer—improves retention on memory tasks (Metcalf, 2017). However, real-world learning is not necessarily anchored in memory recall, well-defined right and wrong answers, or prescribed ways of thinking and doing. Teachers seek to facilitate the development of critical thinking, problem-solving skills, and creativity. They should also attend to the mindsets of their students, encouraging a "growth mindset"

that perceives effort as a way to overcome failures and setbacks and to improve performance, as opposed to a “fixed mindset” that views failures as an indicator of diminished ability or intelligence that cannot be changed (Dweck & Yeager, 2019). Efforts to provide feedback and support growth mindsets contribute to a classroom’s error climate—defined as “the way students’ errors are used, treated, and evaluated during the learning process” (Soncini et al., 2021, p. 721). In other words, mistakes should be positioned as positive, valued, and expected elements of school learning. There is a robust and ever-growing body of literature on teacher and student responses to mistakes that draws on a variety of European populations (e.g., Soncini et al., 2021; Tulis et al., 2018; Zamora et al., 2018)—each country having its own distinct local culture and norms regarding responses to mistakes—but work on error climate is still emerging in U.S. contexts. It is important to distill some of these differences and unpack how they manifest locally in American schools, as societal orientations toward mistakes often differ vastly among countries (Eriksson et al., 2020).

To date, only a very small number of studies have directly investigated the nuance of U.S. teacher attitudes toward and responses to student mistakes in real-world classroom settings, and most of these happen to be in elementary-level public schools. Lottero-Perdue and Parry (2017) interviewed and surveyed third-, fourth-, and fifth-grade teachers engaged in engineering instruction. The authors found that

a largely negative view of failure (in all its word forms) is part of the historical tradition of education and part of many teachers’ personal backstories; these histories influence teachers’ responses to and use of the words fail and failure and whether/how they allow students to experience failure in the classroom. (Lottero-Perdue & Parry, 2017, p. 64)

In other words, teachers carry their past, personal experiences into the language used and responses offered when students fail and make mistakes. Additionally, despite teachers’ attempts to create classroom cultures that instill a growth mindset, the pervasive urge to mitigate student failure through scaffolding often undermines the full implementation of the approach (Lottero-Perdue & Parry, 2017). In an interview study of public school kindergarten teachers, Donaldson (2019) identified five commonly reported responses to student mistakes: “(a) differentiating responses to the learner, (b) building a positive classroom culture, (c) facilitating student self-correction, (d) adjusting instruction, and (e) considering outside factors” (p. 540). These approaches likely reflect the influences of both the public school context, as well as considerations of developmentally appropriate practices that are foundational to teaching in early childhood. In a portraiture study comparing public school kindergarten teachers, Donaldson (2020) juxtaposed how two teachers responded to mistakes—one in an inner-city school with constrained resources and the other in a well-to-do suburban context. The study demonstrated that, although educators may share some general approaches to teaching, contextual factors beyond their control—such as access to instructional resources or support staff, flexibility of scheduling, and achievement pressures—greatly impact exactly how they respond to mistakes during day-to-day teaching.

While steady progress has been made in studying the range of U.S. teaching experiences with mistakes, there are a great number of school settings not yet represented in this concise corpus of literature. Few, if any, studies on the social and relational aspects of teacher responses to student mistakes have involved U.S. high school teachers, nor do they usually inquire into American schools outside of public districts. Broadening our view of this phenomenon requires the inclusion of a wider range of classroom settings and grade levels in the United States—for example, in an elite private high school—so that we can get a clearer perspective on the commonalities and key differences among them. The structure, demands, academic focus, and student needs of high schools vary greatly from those of elementary school, middle school, or college classrooms. Also, with greater autonomy, private institutions make decisions and set norms at the campus level without any requirements to address external accountability measures tied to public funding. One size does not necessarily fit all, so there is a need to improve the variety of American instructional settings represented in the research literature. The present study advances this goal by exploring teacher responses to mistakes at an elite private high school in the United States.

The Culture of Learning From Mistakes in Elite School Contexts

Elite schools are a unique educational context that varies substantially from public schools and stand out among other private school settings. There are five established criteria put forward by Gaztambide-Fernández that are used to define elite schools: “They can be typologically, scholastically, historically, geographically, and demographically elite” (Angod & Gaztambide-Fernández, 2019, p. 231).

When it comes to the culture and workings of U.S. elite private school classrooms, a handful of scholars have provided some important insights over the decades that are relevant to understanding how teachers approach feedback and mistakes in practice. Students at elite institutions often feel immense pressure to perform academically at high levels and view mistakes as weaknesses. However, some teachers may provide opportunities that encourage students to take an honest look at their performance and engage in academic risk-taking, so that they can learn how to give and receive feedback gracefully. For example, Howard (2008) writes about his time as a faculty member at an elite private school, specifically noting that initially students were focused on academic success in a competitive environment, and they did not feel safe making mistakes. In his position as their teacher, he actively worked to counter these anxieties: “By showing them that I didn’t have all the answers, they got to know me as more than just one who provided them with knowledge, but also as a human being who struggled to understand and who made mistakes” (Howard, 2008, p. 3). He found that he was able to dampen the high levels of competitiveness among the students, encouraging them to collaborate and to respectfully offer fellow students and himself feedback. “In creating an open and honest environment, my students had to learn how to offer and exchange feedback in a respectful way, which was different from how feedback was typically provided by the adults in their lives” (Howard, 2008, p. 4). This progressive approach allowed Howard’s students—at least while in his classroom—to lean into intellectual risks and develop the ability to learn from mistakes and feedback.

While Howard (2008) and some other older studies of elite private school settings have demonstrated ways that teachers foster adaptive responses to mistakes and leverage them to advance student learning, this is not necessarily universally the case. Reflecting on his ethnography of an elite high school, Gaztambide-Fernández (2011) speaks to the student practice of “B-S’ing” responses, or confidently “faking” their understanding to maintain the appearance of competence, even when unprepared or unsure of how to respond. From an instructional perspective, this runs counter to the essence of learning from mistakes; because students are purposely “talking [their] way out of anything” (Gaztambide-Fernández, 2011, p. 583) they do not know how to answer, instead of diligently preparing and then engaging in authentic learning and informed discussion about their misunderstandings. However, while this is a key survival mechanism by which students can meet the very rigorous and at times overwhelming demands of their elite schooling, it is also a well-established way that students in these settings are socialized to manage their academic reputations. Gaztambide-Fernández (2011) notes that “B-S’ing” is a means of enacting privilege and is expressly a part of becoming an elite. His account demonstrates the “close relationship between learning the cultural practices associated with the elite, and learning how to bullshit” (p. 582). He observes that the strategy is effective and proves useful for students as they graduate from their elite high schools and are admitted to other elite educational spaces for college.

These studies provide rare glimpses into mistake-related interactions embedded in the day-to-day functioning of U.S. elite private schools. Very often, research in these schools focuses more on the workings of cultural reproduction, outlining the mechanisms by which elite settings imbue a predominantly white and affluent student population with the privileged social status and structural advantages long associated with these exclusive institutions (Angod & Gaztambide-Fernández, 2019; Kang, 2021). Such studies also often highlight how challenging it is for people from outside of these backgrounds—Black and brown students, as well as those who are not wealthy—to be included (Kinney, 2017; Purdy, 2018). Undoubtedly, these are much-needed perspectives in the study of elite education. However, the present analysis features another important aspect of learning within the elite private school context: teacher responses to student mistakes during daily classroom instruction.

Methods

Participants

Five teachers at The Fields School¹—a nationally-recognized, highly-ranked, elite private school—were recruited and interviewed as part of a multifaceted study focused on teacher responses to student mistakes. Fields is a co-educational, private school located in the Northeast United States, and the student body includes a mix of boarding and day students. Tuition exceeds \$50,000 per year, and the school serves hundreds of students, while boasting a very small student-teacher ratio.

The five participants are high school teachers (grades 9–12) who were identified through a snowball sampling method. One teacher responded to an invitation that was distributed through the author’s personal and professional networks and, after being interviewed, this participant forwarded the recruitment materials to the Fields faculty. Each participant had taught for years in the arts and humanities subject areas (Table 1).

Table 1. C

Pseudonym	Subject area taught	Total years of teaching experience
Adam	Music	2
Brian	English	~20
Chris	English	>40
Daniel	Visual arts	~20
Ervin	Social studies	~10

The teachers said that they led about two or three individual classes per day within their specialty area and indicated that their typical class sizes were around 12–15 students per session. At the time of the interviews, these teachers had worked in secondary-level classrooms for an average of 18 years (range: 2–40+ years; average of 15 years at Fields). By chance, all participants were male; two were Black and three were white; four of the five held a Master’s degree or higher².

Data Collection

Interviewing was selected as the method for this study because it facilitates inquiry into participants’ internal experiences, including how they see the world and interpret their own perceptions. A teacher interview “allows us to put behavior in context and provides access to understanding their action” (Seidman, 2019, p. 20). This is useful when exploring how educators respond to student mistakes; watching instruction from the outside yields important insights but does not provide access to the teachers’ inner interpretations of and intentions for their instructional practices and the social workings of their classroom. Furthermore, often it is the accrual of lived experiences over long stretches of time that ultimately shape a teacher’s beliefs, preoccupations, interpretations, and default practices, perspectives that cannot easily be captured through intermittent, direct observation.

¹ Pseudonyms are used for all names, including the teachers and the school. Also, detailed school and individual teacher characteristics have purposely been omitted or broadly characterized to protect the identities of both the study participants and the institution.

² Government-collected data are not aggregated separately for elite schools versus other private institutions, and the Fields School does not directly provide detailed data on the composition and attributes of its faculty and student body. That said, the demographics of this group of teachers at this elite school are particularly striking, given that across all U.S. private schools, teachers are 75% female, 85% white, and 48% hold post-baccalaureate degrees (U.S. Department of Education, 2023b).

The interview protocol was semi-structured, consisting of a series of questions focused specifically on beliefs about how teachers should handle mistakes during instruction and recollections of past responses and feedback in the classroom (Table 2).

Table 2. Summary Chart of Interview Protocol (Adapted From Donaldson, 2019)

Interview section	Focus of questions
Classroom and instructional orientations	<ul style="list-style-type: none"> • Teaching experience and training • Classroom characteristics • Description of teaching approach
Statement of personal beliefs on mistakes in the classroom	<ul style="list-style-type: none"> • Definition of terms (error, mistake, misunderstanding) • Common student mistakes observed • Attitudes about mistakes • Strategies for response
Recollections of responses to student mistakes	<ul style="list-style-type: none"> • Detailed accounts of numerous experiences with mistakes from classroom teaching
Summative closing reflections	<ul style="list-style-type: none"> • Advice to new teachers • Overarching philosophy
Classroom and instructional orientations	<ul style="list-style-type: none"> • Teaching experience and training • Classroom characteristics • Description of teaching approach

An extensive review of the existing literature on teacher responses to mistakes, as well as studies of learners' responses to mistakes and feedback, served as the basis of the author's inquiry into this topic. Even with this foundational literature in mind, the questions were designed to be open and generative rather than prescriptive, inviting the participating teachers to share specific details and accounts of mistake-related instructional experiences from their day-to-day lives. All interview sessions were conducted over the course of a 6-week period near the close of an academic school year. Each teacher had a single interview session, which averaged 60 minutes per person (range: 34–75 min) and was digitally recorded for subsequent transcription, coding, and analysis. All research procedures, including participant recruitment and data collection, were conducted in accordance with ethics guidelines and with the approval of the researcher's governing Institutional Review Board.

Data Analysis

For this thematic analysis, brief analytic memos (Saldaña, 2021) were written after each interview to begin to identify, describe, and process potential themes. A grounded theory approach was employed by engaging in emergent (emic) coding, comparing incident with incident across the interview transcripts (Charmaz, 2014). Each incident was comprised of a block of text—ranging from a sentence to a paragraph in length (Charmaz, 2014)—that spoke to a single idea, topic, area of focus, or example. Using the MaxQDA qualitative analysis software program, a description or adjective was applied for each statement relevant to answering the guiding research question about teacher responses to student mistakes. Using gerund phrases to label each incident served as

a heuristic device to bring the researcher into the data, interact with them, and study each fragment of them ... help[ing] to define implicit meanings and actions, give researchers directions to explore spurs making comparisons between data, and suggest emergent links between processes in the data to pursue and check. (Charmaz, 2014, p. 121)

After carefully coding all transcripts, common themes were identified through constant comparative methods, in which a researcher will “compare data with data to find similarities and differences” (Charmaz, 2014, p. 132). This iterative review of the coded instances and the analytic memos was a means to triangulate the data both within and across interviews. Subsequently, a detailed memo was prepared that contained articulations of each theme and subtheme, along with numerous illustrative instances of evidence from the interviews to support the stated claims.

Findings

In the coding and analysis of the interviews with five teachers from The Fields School, three central themes emerged that describe how these educators strive to frame and respond to student mistakes in their elite private school environment: 1) building rapport to make mistakes feel safe, 2) releasing teacher control so students steer instruction and correct themselves, and 3) increasing instructional rigor through frequent challenges, question-asking, and feedback. Following a brief summary of the types of mistakes regularly encountered during their teaching, each theme is described in depth and infused with representative, illustrative direct quotations and examples drawn directly from the teacher interviews. This is done intentionally so that, to the fullest extent possible, the descriptions of the overarching findings are rendered in the teachers’ own words, rather than in the author’s rearticulated summaries.

Teacher Descriptions of Student Mistakes

During the interviews, the five teachers described several common types of student mistakes that they regularly observe in their arts and humanities classrooms at The Fields School. A wide range of examples were provided during the interviews, including:

- Stating an error of fact, executing a skill incorrectly, or misinterpreting an idea.
- Providing an unclear or illogical argument.
- Not giving adequate explanations or evidence to support claims and justify inferences.
- Not making full effort in their work.
- Being distracted or simply remaining silent and not contributing to the class discussion.

Generally, the teachers tended to de-emphasize—or, in some cases, to outright reject—strict categorizations of right and wrong. This was true across various forms of student work, including choral singing, visual artmaking and critique, formal writing, in-class discussion, and peer debate. While several of the teachers acknowledged the sense of absoluteness, finality, external judgment, or other negative connotations that others might associate with the word *mistake*, they all strongly pushed back against this idea, preferring to think of mistakes as a chance for students to recalibrate and improve their performance.

Building Rapport to Make Mistakes Feel Safe

The participating Fields teachers said that they are not afraid to call out mistakes directly, but also take deliberate steps to connect with individual students and to increase their comfort with receiving feedback and taking intellectual risks. When a student makes a misstep, the teachers acknowledged that there is a “delicate balance to strike” (Adam), but they still do not hesitate to “point it out” (Ervin). For example, the teacher might say, “I think something’s wrong” (Brian), if a student mixes up some details, or, “You’re not doing what you need to,” if a student is not giving “100% effort” (Adam). At the same time, several of the teachers noted that the Fields student body includes several “kids who are perfectionists” and are “very afraid of making mistakes” (Brian). Receiving feedback about mistakes from the teacher makes some students feel that they “never do anything right” (Chris), and at times they may even say out loud, “I’m so dumb” (Brian). The

teachers conveyed that with high tuitions and parent expectations looming, students feel a lot of pressure to achieve at a high level, creating a sensitive environment when it comes to making errors that can “hinder growth because it discourage[s] taking risks” (Daniel).

To assuage student anxieties and to help them feel more comfortable trying out new skills and learning from their mistakes, the teachers said that they take a couple of very direct actions. They invest substantial energy in getting to know who their students are. Daniel remarked, “I think really great teachers have the ability to connect with their students on an individual level,” and know that, “It’s going to be different from one student to the next.” These interpersonal connections are not simply about the academic work, and, as Chris explained, “I also try very hard to get to know my students beyond the classroom I have to build relationships with those kids that are deep enough so they trust me.” Despite the effort this takes over and above academics, the teachers invest substantial time and emotional energy into building relationships with students. They foster these connections over time through daily handshakes, nonacademic chitchat, attending extracurricular games and performances, and meeting one on one outside of class periods. Teachers shared that they are “very sensitive” (Brian) to the students’ personalities and life circumstances, acknowledging that these efforts help increase their students’ comfort levels and establish an important interpersonal foundation for later mistake responses. As Ervin explained, “I think it helps them when we’re doing the more formal stuff of, ‘Here’s my feedback on your writing.’ And, it doesn’t feel so overwhelming, because they know of other things we’ve talked about, or other silly things, whether it’s a journal, or sports, or music.” Overall, they conveyed that investing in building this interpersonal rapport goes a long way in supporting student learning from mistakes.

As the teachers get to know who their students are over time, they feel they are better able to promote a safe and positive error climate. When students actually make errors, the teachers said that they try to frame them positively by “not making them a big deal” (Ervin) and conveying that it’s “all part of the process, and it’s important that they make mistakes” (Adam). In the end, they strive to “create a community within the classroom so that they feel comfortable talking” (Chris). Beyond getting to know the students and responding according to their personalities, four of the five teachers indicated that a frequent way they build rapport and ease in moments of mistakes is with humor. When students make mistakes, “Humor allows me to be direct about it but also have it be a comical thing, where they laugh at themselves” (Adam). It can be “stand-up comedy” (Brian) and, in some cases, it is the “best weapon” (Chris) to ease the students’ anxieties with a bit of fun.

Releasing Teacher Control So Students Steer Instruction and Correct Themselves

Over and over, the teachers stressed that one of the principal aims of their teaching is to give control to the students, so that they can take the lead in their individual and class learning and feel empowered to correct their own mistakes. More often than not, the students’ work and responses are not held up next to a predetermined answer key or rigid teacher expectation for learning, but instead reflect the class’s own processing of whatever comes up. Daniel explained, “I’m trying to remove myself more and more. I’m trying to make my classes less teacher-centered and more student-focused.” Time and again, the interviewees asserted that the teacher’s perspective is not superior to the student’s perspective. Also, students can use the teacher feedback provided to push things as they deem best when trying to improve. There is no one right way to proceed, and the teachers are open to pursuing a plethora of approaches that students might suggest during class. For instance, Chris gave this example:

There are 10 million things I could talk about in *War and Peace*. I don’t have a hierarchy that says, “I’ve got to deal with this and then this and then this.” Whatever. To me, it’s more like I’m giving them a bone and they’re gonna chew on that bone, and the chewing is what I’m after. And so they can chew on this bone or that bone or some other bone. It doesn’t make any difference to me which bone they chew on, because you’re getting practice in chewing.

In this case, Chris does not demand coverage of a particular set of understandings or discussions that he feels are

required or ideal. Instead, he allows the students to recommend specific points they will focus on in the class session. In that sense, the emphasis is not on determining whether students land on a particular answer that he wants or correcting mistakes as students miss the teacher's mark. Throughout, he remains open to the students' curiosity and allows it to lead them in the class, as they "chew" on the ideas they are drawn to the most.

Furthermore, all five teachers discussed the importance of helping students learn to interact with each other about mistakes regularly through feedback, critiques, or rebuttals during conversations. The teachers indicated that, initially, some students shy away from critiquing peers because, "They're afraid of offending somebody" (Daniel). However, the teachers urge students to change their perspective: "I tell them, 'This is a team. We're studying this together.' The future of all organizations is collaboration" (Brian). Through their peer-to-peer instructional practices, they are "introducing a language for how to discuss work and how to communicate ideas" (Daniel). Inviting students to offer critique, lead class discussions, and debate others with differing ideas "empowers them to think of themselves as being in a position to lend advice and suggestions to their peers" (Daniel). Essentially, it allows another way for the teacher to "back myself out of it" (Daniel) and gives more opportunities for self-directed learning from mistakes and from each other. Three of the teachers (Brian, Chris, and Ervin) discussed turning over large portions of the class to the students. Through modeling in the first portion of the term and then gradually releasing as the weeks progress, "The stronger students and the more talkative students really start to just lead the discussions, and I would become more of a moderator" (Ervin), who is present to "help them and to facilitate things" (Chris). Once routines are established, teachers may at times simply "sit at the back of the class for half of the course" (Brian), while students lead daily instruction in its entirety. This hands-off instructional approach de-emphasizes the pursuit of teacher-determined right answers and teacher-led activities and elevates student-driven leadership, debate, and critical thinking, thereby pushing all students to get some degree of an introduction to instructional leadership and facilitation.

Within this approach, the standard by which thinking is assessed does not encourage students to dwell on mistakes too much. From the perspective of these teachers, "It doesn't really matter what I want," and, "I expect and hope that they are gonna challenge me" (Ervin). At the end of the day, "It's not an issue of being right or wrong; it's an issue of freeing your mind to engage as much as possible in the text" (Brian). By removing the pursuit of the teacher's demands and trying to provide specific answers or skill execution, the focus shifts away from grades and perfection and toward knowledge creation and leadership. This stance also extends to when students are given feedback on their work. For example, Brian provides his students with a metaphor to explain the role he hopes to play in their writing process:

I have the kids prepare three questions that they have about their writing. I tell them, "Your writing is your horse. It's your horse, it's not mine. I don't choose the horse for you. You're in the saddle. You can't get the horse to do something you want it to do. I know something about horses. I am on the ground. So, you ride your horse over to me, so I can get this thing to jump." So, as opposed to saying, "There is one right way to write, and I'm gonna make you write that way," I say, "Your writing is your voice; it's precious. You need to learn to respect it. You need to learn to hear it And, when you write, I want to hear you. I don't wanna hear somebody that sounds like me. I don't want to hear you imitating somebody else. I want your voice."

This method of instruction allows the students to choose not only the content and questions they want to pursue in their writing, but even which types of feedback they wish to focus on for revisions of their drafts. This practice teaches students how to direct their own learning and get more comfortable asking for help to improve in the future.

Increasing Instructional Rigor Through Frequent Challenges, Question-Asking, and Feedback

The interviewed Fields teachers emphasized that they push their students toward more rigorous ways of

engaging with academic content and that their teaching is not about getting to right answers. They explained that their instruction is often led by “asking a pretty open-ended question” (Daniel) to get things going, followed by active student participation. Class learning is focused on navigating challenging course content through sustained engagement with ideas. Often, the teachers even convey to the students that they can expect to engage in challenging tasks, directly telling them ahead of time that “this is going to be difficult” (Ervin). During guided practice, sometimes they might even “start with the hardest one” (Adam) so that later attempts feel relatively easier. The teachers are willing to present hard work to their students and are confident that they can rise to the challenge. Chris explained his perspective on his students: “They’re not as well-trained as I am, but they’re smarter and they’re capable. If I push them, they’re capable of making relatively fine distinctions, but they don’t do that automatically. I’ve gotta push them to do it.” And when mistakes inevitably occur, Brian is wary of shaming students: “Instead of saying ‘You’ve got this wrong,’ ‘That’s not right,’ ‘This isn’t the way it works,’ ...or, ‘You have bad reasoning’—I would never say that—I would say, ‘This is the challenge, because this is what happens in our minds.’” With this approach, Brian seeks to frame his students’ mistakes and muddled or unclear reasoning as a normal and expected byproduct of complex thinking.

In this environment, students are expected to wrestle through the challenges presented. At the end of the day, the most important output for the teachers is not reaching the “right” answers, but rather, the effort in the task. Mistakes are expected. Adam stated directly, “The primary thing is the effort that students are putting in. If they’re giving 100% and they keep screwing up, I don’t really care.” In their classrooms, perfection is not the point; the goal is building the skill of perseverance and a growth mindset that encourages students to put themselves out there, taking intellectual risks and pursuing new ways of learning and thinking. Daniel conveyed that, in his opinion, an overemphasis on protecting students’ self-esteem and happiness in the face of challenges actually

erodes the courage that’s needed to be curious and to challenge oneself and to grow, because the students are apt to play it safe. If they feel that their errors are going to be a referendum on who they are, there is such a judgment placed on that.

He and the other teachers found mistakes made during challenging intellectual work to be important moments of personal growth for the students and opportunities for them to improve.

One of the main ways these teachers said that they really lean into the misstatements or overly simplistic responses that arise during class discussions is by asking students probing questions, often described in a manner consistent with the Socratic Method of teaching (described in Wilberding, 2021). When evaluating responses, the teachers said that they are not looking for a particular right answer. Nearly all of the teachers shared that, when students are making assertions, they ask them to delve deeply into the meaning of what they are saying. In response to an overly general comment or unsubstantiated claim, they say to the student directly, “Explain it to me You gotta back these things up. You can’t just give me opinions, because every opinion is fine” (Chris). Another teacher asserted, “I never ask a question which has a right or wrong answer, period,” instead preferring to give feedback about how to improve an argument and then “just keep asking them the questions to help them figure it out [and] elicit their own understanding” (Ervin). As previously stated, the heart of this approach to mistakes is the premise that the teachers’ opinion or reasoning is not as important as the understanding that the students build for themselves. By downplaying—and at times withholding—their own answers, the Fields teachers promote students’ critical thinking and nudge them to develop their own robust explanations, rather than a regurgitation of what the teacher has already said.

Finally, although the teachers urge the students to do much of the heavy lifting during discussions and interactions in class sessions, they also invest substantial time and effort into providing individualized feedback on students’ work products. The teachers described how they closely examine their students’ work—a paper, an art piece, a singing rendition—and give detailed commentary on its flaws and what they should do

to make it better. Ervin explained, “I’m not here to make value judgments. I’m here to give my feedback.” He and the others are not focused on being right or wrong, but about offering specific comments on how students can improve their future performance. Often, this feedback is immediately relevant, as many of the teachers expect a second submission of the students’ drafts as a part of their courses. For these teachers, targeted feedback on student work is central to instruction. Chris shared, “I write a lot of comments. The weaker students get more comments than the stronger ones, because I have more questions.” Although they may resist at first, students appreciate it; some even return to express this by “thanking me for teaching” them (Brian). Ervin said, “I comment on everything” so that “they can look at everything,” although “some students are overwhelmed by it.” Like Brian, Ervin also had students later thank him because they didn’t realize their mistakes and being called out gave them the opportunity to improve their writing practices. Several of the teachers also mentioned providing targeted feedback for students who make a lot of mistakes, most often in private one-on-one meetings. They might need to “meet regularly, weekly, one on one to try to fix this” (Adam) or just for periodic meetings in which, “They have to sit with me” (Brian), to discuss their work. As may be expected in any learning and teaching context, teachers found that, without intervention, their students struggling the most often do not show improvement on future submissions.

Discussion

This interview study of five arts and humanities teachers at The Fields School affords a glimpse into how U.S. educators at an elite private high school respond to student mistakes. The findings conveyed three central themes that emerged during analysis: building emotional safety and rapport with students, yielding control of instruction to promote self-correction, and providing rigorous challenges through robust question-asking and feedback. Of course, these practices and orientations to learning are far from exclusive to elite private schools; for example, numerous public school teachers also invest heavily in relationships with their students or elect to use the Socratic Method in a classroom discussion. That said, it may be worth considering the extent to which advantageous elements of the participants’ context at Fields—including small class sizes, years of experience, lack of state-mandated standardized testing, and flexibility of curriculum—may contribute to their ability to consistently provide positive and highly individualized mistake responses.

As illustrated in the first central theme presented in the study findings, the interviewees strongly emphasized the importance of creating a safe learning environment for intellectual risk-taking, so that students feel comfortable facing (and learning from) their mistakes. The Fields teachers explained that a critical aspect of establishing safety during instruction is investing in building rapport with their students—both inside and outside of the classroom. This aligns with prior research that shows that “warm and close teacher relationships positively contribut[e] to adolescents’ engagement in school over time For adolescents, teachers can serve as a source of support, who help them to engage behaviorally and emotionally in learning activities” (Engels et al., 2021, p. 9). This study demonstrates how the teachers’ emotional and personal engagement with adolescent learners is of the utmost importance in their work at Fields and how, from this basis of trust, they are able to enhance student learning from mistakes. In building a positive error climate (Soncini et al., 2021), the Fields teachers endeavor to foster both positive attitudes and adaptive responses from the students in their classrooms. They mirror Howard’s (2008) detailed descriptions of his experience as a teacher in an elite setting, specifically the desire to increase students’ comfort level with mistakes and to boost their willingness to take intellectual risks. Like Howard, the interviewees expressed that they, as teachers, do not have all of the answers, work to increase collaboration and reduce competition among students, and teach students how to graciously give and receive feedback. Furthermore, they explicitly stated that mistakes are not a big deal and that frequent use of humor keeps the tone of mistake-related conversations light, which they said helps to lessen student worries about academic performance.

Notably, the teachers shared that they do not eliminate mistakes from the learning process but instead give students the opportunity to face them head-on and work through how to respond, thereby enabling their students to have a more adaptive perspective on mistakes (Loibl & Leuders, 2019). The participating Fields teachers said that they commonly facilitate discussions about student errors in an effort to advance students' conceptual understanding and frequently urge the entire class community to provide commentary when mistakes occur. Rather than aiming for specific answers, the interviewees want students to engage in the mental exertion needed to elucidate vague answers, identify mistakes, and pull apart the flaws in logic for themselves. Through open-ended questioning during whole-class discussions, the teachers described how they prompt students to use critical-thinking skills to assess their own answers or those of peers. Additionally, they privately provide written or verbal feedback on how to improve future drafts. Instructional strategies like these can help create an environment in which student effort is prioritized and discussions of mistakes are normalized, promoting a growth rather than fixed mindset (Dweck & Yeager, 2019).

The second central theme from the present study reflects how the teachers allow the students to lead their own learning. In their interviews, the Fields teachers repeatedly described the specific ways in which they try to take up less space in the lessons and give the students more agency in the classroom, bolstering the students' abilities to appraise their own work. Through this approach, they are "enabling learners to become active agents in assessing their own malleable strengths and weaknesses, reducing reliance on the educator as an authoritative source of judgments" (Winstone et al., 2017, p. 25). In elite classrooms and beyond, this level of self-appraisal is key in helping students not only to better grasp the content but also to build the critical-thinking skills necessary to deepen learning and improve performance in the moment, as well as to assess their own future mistakes accurately, so they can learn from them. The Fields teachers even go so far as to declare that their own answers and commentaries are irrelevant or don't matter. They convey to the students that teacher responses are no better than their own and that a range of answers and perspectives is completely acceptable, thereby encouraging students to rely on themselves more than to pursue a particular answer or performance dictated by the teacher.

Finally, the third central theme speaks to how, in the interviews, these Fields teachers communicated their great desire to create robust, authentic learning challenges for their students, pushing them to fully elaborate their thinking during discussions and offering individualized feedback to help them improve their work. With question-asking as a go-to leverage point, the Fields teachers prompt students to provide evidence and reasoning to justify their arguments and actions. The teachers tell students in advance when the work ahead will not be easy and give a heads-up when mistakes are to be expected along the way. The Fields teachers repeatedly offered real-world examples from their teaching that reinforced the idea that, although students face new and difficult tasks, with effort they have the power to improve their ability and performance (Dweck & Yeager, 2019). To that end, the teachers also said that they are committed to consistently providing individualized feedback to their students. Teacher suggestions for improvement may well fall on deaf ears without the right content, focus, and tone, and they must be delivered within the context of a trusting teacher-student relationship (Winstone et al., 2017). The interviewed teachers described how they work hard to craft an environment in which students feel empowered to act on what they learn from their mistakes in the immediate context and beyond. This experience is facilitated by operating in a well-resourced, private school setting characterized by smaller class sizes. Additionally, the ability to meet with students one on one to discuss their work is critical (Winstone et al., 2017).

Limitations and Implications for Practice

Interviews are useful in helping us get at the inner experiences and motivations of participants (Seidman, 2019). However, one tradeoff of the method is that, by design, this study cannot represent the whole of the experience of mistakes in elite classroom settings. Despite the sincerity of the teachers' stated strategies, intentions, and perceived successes in helping their students learn from mistakes, they cannot fully know the

extent to which Fields students might be “B-S’ing” in their work, as has been observed in other elite school settings (Gaztambide-Fernández, 2011). By faking comprehension and approximating responses, some Fields students might prioritize managing their image and sidestep their mistakes, causing them to miss out on the valuable benefits of feedback and further elaboration from their teachers and peers. It would require additional study to discern the extent to which students engage in this behavior at Fields and in other elite schools. Furthermore, because the interviews were squarely focused on understanding the participating teachers’ responses to student mistakes in the small moments of teaching, the study does not delve into some of the possibly troubling aspects of elite education. This includes the long-standing mechanisms of cultural reproduction that occur in elite educational spaces, intended to pass on privilege from one generation to the next (Angod & Gaztambide-Fernández, 2019), a topic that did not come up organically in any of the teachers’ interviews. While this current investigation does allow for valued insights from the instructor point of view, additional inquiry employing other methods and participants (e.g., interviews with additional community members, classroom observations, document analysis, comparative cases at other schools) would help to craft a more refined understanding of the role of mistakes in elite spaces.

The findings from this small, single-site, interview study have limited generalizability; however, closely examining how these five Fields School teachers think about mistakes in one specific setting certainly yields interesting insights relevant to all teaching contexts. The rich descriptions of the interviewees’ experiences, beliefs, and perspectives reveal how the participating teachers at this elite private high school feel empowered to take a very student-centered, flexible, instructional approach. They position mistakes favorably and encourage their pupils to be thought leaders in the classroom. Assuredly, there are teachers in many types of schools who also do this. However, in real-world practice, not all teachers have the same level of instructional freedom, small class sizes, and tangible resources needed to facilitate classrooms in this manner. Studies like this can inspire important reflection for practitioners and school leaders across a range of school settings. Seeing the various ways that educators in different environments—including elite schools—respond to mistakes can promote self-reflection for pre- and in-service teachers, prompting them to consider the ways their own pedagogical practices, school culture, instructional autonomy, and access to resources align with or deviate from those of their peers.

Recommendations for Future Research

Looking toward the future, researchers should continue to deeply examine teacher feedback and responses to mistakes in a wider variety of settings—in the United States and around the globe. This includes continued work to make international comparisons of mistake responses (Eriksson et al., 2020), as well as interview and observational studies that offer textured descriptions of daily life in the classroom (e.g., Donaldson, 2021). Further study is needed to more clearly articulate context-specific variations in U.S. teacher views of student mistakes. Instructional strategies and communications may differ across developmental levels (e.g., early childhood vs. adolescence), subject areas (e.g., English, science, world languages, or even involvement in team sports), school types (e.g., public, private; urban, suburban, rural), or educational philosophies (e.g., Montessori, no-excuses charters, experiential learning). The matrix of characteristics for each setting offers particular constraints and affordances that influence how students learn from their mistakes. Researchers can pursue additional inquiry into how mistakes are addressed during real-time instruction by conducting teacher and student interviews and observations in school contexts that have not yet been investigated. In time, we can construct a panoramic view of how U.S. policies, decisions, and default interactional norms across classrooms, schools, and districts impact mistake-related instructional moves at a fine-grained level. These insights will help build an impetus for policy and resource changes that address structural inequalities and that help to extend a greater range of day-to-day instructional strategies and options to all teachers.

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